DAMCAST PS User's manual

Damcast PS,A biocompatible cobalt chrome alloy, nickel & beryllium free, as defined by ISO22674 ,for restorations of removable framework and partial dentures.

Technical Data & Composition

Melting Range	1240– 1340℃	Cobalt	64%
Yield Strength	520 MPa	Chromium	29%
Elongation	6%	Molybdenum	6%
Density	8.3 (g/cc)	others	<3%
Modulus of elasticity	220Gpa		

Instruction for use

INVESTMENT:

Use investment recommended by manufacturers only for high heat Chromium-Cobalt Partial Denture Alloy. Follow the manufacturer's instructions carefully. Phosphate base investments, water or liquid mix is recommended.

TORCH CASTING:

1- Multi-orifice tips are recommended.

2– Light the torch; for better results allow the blue inner flame to expend not more than 3 mm, and the outer flame approximately 38 mm from the torch tip.

3– Place sufficient alloy in the preheated crucible.

4 – Heat the alloy uniformly. Cast immediately after slumping to avoid excessive burning.

INDUCTION CASTING:

Follow the manufacturer's instructions; the casting temperature is 1510-1540 ℃ . When the metal has melted as one mass;

FINISHING:

1 – Use thin cut-off wheels to remove buttons by cutting sprues close to the casting, and trim remaining metal from sprues and shape with heavy cut-off wheels.

2 – Use barrel shape stones to grind the surface of lingual and palatal bars, and shape the finish line areas on upper cases.

3 – Use inverted cone type stones to trim or grind tight areas.

4 – Do not stone stippled surfaces; electro polish the high shine.

5 – Casting should be ready for sandblasting and polishing.

ELECTRO POLISHING:

Use Electro Polishing units that are recommended for high heat Chromium-Cobalt Partial Denture Alloys; Follow the manufacturer's instructions; remove the case from the solution and rinse thoroughly with running water; go over entire case and remove all surface marks with rubber wheels and points.

WELDING & SOLDERING:

1 – Clean by grinding or sandblasting the surface of the areas and then invest.

2 – Thick areas should be ground to shape so that the top of the surface is wider than the bottom.

3 – After lighting the torch adjust to neutral flame with approximately 12mm blue cone extending from the torch tip.

4 – Heat the welding rod and dip it into the flux: heat both parts of welding areas.

5 – Clean the case in an ultrasonic cleaner.

Recommended Solder: Use cobalt based dental solder recommended by solder's manufacturer.

Note: For best results use at least 50% new metal with 50% sandblasted and cleaned buttons.

ZHENGZHOU YADENT NEW-MATERIALS CO.,LTD
Huagongxi road,high-tech development zone,zhengzhou,china